Fluency

A jug contains some milk.

Josh pours $\frac{1}{2}$ of the milk into a glass.

Josh pours $\frac{3}{10}$ of the milk into another glass.
What fraction of the milk is left?

Use diagrams to show what happens when you try to add:

$$\frac{1}{5} + \frac{2}{10}$$

Show the different steps.

Work out the following:

1. $\frac{3}{4} + \frac{2}{5}$ **2.** $\frac{10}{12} - \frac{1}{3}$ **3.** $\frac{6}{8} + \frac{3}{5}$ **4.** $\frac{1}{8} - \frac{3}{4}$

5. $\frac{3}{7} - \frac{1}{5}$ **6.** $\frac{2}{10} + \frac{3}{8}$ **7.** $4\frac{4}{9} + 2\frac{5}{6}$ **8.** $5\frac{3}{7} - 2\frac{6}{5}$

Reasoning

Bashir says:

"I do not need to do any written calculations to solve $\frac{4}{8} + \frac{2}{4}$ "

Do you agree?

Explain how you know.

Emily says:

"When you add fractions together the answer is actually smaller because when the numerator is a bigger number the piece is actually smaller."

What mistake has Emily made?

Explain your answer using a diagram.

Rajesh doesn't understand why the denominator doesn't change when adding fractions but the numerator does.

Can you explain why?

Problem Solving

If the answer to a word problem involving subtracting fractions with different denominators is:

$$\frac{14}{32}$$

What could the question be?

Katie subtracted $\frac{3}{5}$ away from a fraction and her answer was $\frac{8}{45}$.

What was the original question?